

## ABSTRACT OF THE DISCLOSURE

MULTIPLE FAN SENSING CIRCUIT FOR MONITORING A NUMBER OF  
FANS UTILIZING A SINGLE SENSE INPUT

5 A multiple fan monitoring circuit for use with a plurality of fans, wherein each of the fans operates at a different frequency and generates a tach signal indicative of the fan operation. The multiple fan  
10 monitoring circuit includes a number of waveform shaping networks, wherein each of the waveform shaping networks is coupled to a corresponding one of the fans. Each of the waveform shaping circuit is utilized to waveshape a tach signal generated by its corresponding fan. The  
15 multiple fan monitoring circuit also includes a frequency processing circuit, coupled to the waveform shaping networks, that receives the waveshaped tach signals at a single sense node. In a related embodiment, the frequency processing circuit includes a summing circuit,  
20 coupled to the single sense node, that combines the waveshaped tach signals into a single combined signal. The frequency processing circuit also includes a frequency discriminator, coupled to the summing circuit, that separates the single combined signal into multiple  
25 components, wherein each of the multiple components corresponds to a particular fan.